

## REMARKS

### Information disclosure statement

Applicant's IDS of October 2003 included a PTO 1449 form listing, among other references, PCT publication WO 02/05378. The Examiner neglected to initialize the 1449 form indicating consideration of the PCT reference. Another copy of the PCT reference is enclosed herewith. The Examiner is requested to indicate his consideration of the reference on the enclosed 1449 form and return it in the next office action.

### Claim amendment

Claims 14-17 are added to more completely claim the invention. Support for the new claims can be found at page 15 of the specification.

### Rejection of Claims 1, 4, 5, 11, 13

Claims 1, 4, 5, 11 and 13 stand rejected as anticipated by Akhteruzzaman (6,584,316).

Applicants submit that Akhteruzzaman does not anticipate claim 1 because the way in which the mobile phone in Akhteruzzaman returns to normal service (end of call forwarding) is not the same as claimed in claim 1.

Specifically, claim 1 requires that once the feature code has been sent to the service control node to activate call forwarding, the mobile phone continues to monitor signal strength and sends a new feature code when the signal strength has improved to be above the threshold. These features are reflected in claim 1 as follows:

**continuing to monitor signal strength at said mobile station during a period when call forwarding is activated;  
automatically transmitting a second feature code from said mobile station to a wireless network when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding.**

Akhteruzzaman works in a very different way, and uses GPS location as the trigger to return to normal mode. In particular, if there is a weak signal and the user has previously indicated that call forwarding should occur if the signal strength becomes weak, the method obtains a current GPS location of the mobile station. A computer program then proceeds to look up a land line telephone directory number stored in the mobile station's memory associated with the mobile station's GPS location. If there is no directory number for the current location, the process is complete and no call forwarding is accomplished. Only if there is a directory number for the GPS location of the mobile station will call forwarding proceed.

In Akhteruzzaman, after call forwarding has been triggered, the mobile device continues to monitor *its GPS location (not received signal strength)* and only after the device has left a predetermined GPS boundary will the device send a new signal to revert to normal operation. See Figure 8, steps 194 and 196, and the text at column 8, lines 46-67.

Accordingly, Akhteruzzaman does not in fact disclose the invention of independent claim 1.

Applicant further notes that the method of Akhteruzzaman is rather onerous and cumbersome. His method requires the subscriber to manually enter specific call forwarding numbers for particular GPS locations where signal strength is weak and determine (programmatically, apparently) appropriate GPS boundaries for the location.

(Col. 5 lines 65-67; col. 8 lines 65-67). Additionally, the approach has limited usefulness, since it is dependent on a land line telephone being present nearby. What if no landline phone is nearby? What if the person does not know in advance whether a particular location has a weak signal? What if the subscriber underestimates the size of the boundary at which a “restore normal operation” signal is sent to the network? Akhteruzzaman has no answers for these situations. Conversely, the present invention does not require usage of GPS or positioning information for the device, does not require a land-line phone to be nearby, and does not require a user to have to know in advance whether a particular zone has cell coverage or not. Call forwarding is triggered and un-triggered by monitoring signal strength, and does not require continuous monitoring of the location of the device.

Accordingly, the anticipation rejection of claim 1 and claims 4 and 5 should be withdrawn.

As to claim 11, this claim has been amended to more clearly distinguish from Akhteruzzaman by reciting that wireless telephone includes:

**“programmable logic providing instructions for automatically continuing to monitor the received signal strength after the first feature is transmitted and for transmitting a second feature code from said wireless telephone to a wireless network deactivating call forwarding when said circuitry determines that the received signal strength, having previously fallen below a threshold level, rises above said threshold level.”**

This subject matter is not disclosed in Akhteruzzaman since the reference has no teaching of automatically continuing to monitor received signal strength after the feature code is transmitted to the network. Akhteruzzaman monitors GPS location, not signal strength.

As to claim 13, no amendment is believed necessary to overcome the rejection because the claim already recites that call forwarding service is activated and deactivated by “transmission of first and second feature codes from said roaming mobile stations, respectively, and further wherein said first and second feature codes are transmitted when a monitored measure of received signal strength at said mobile stations falls below, and rises above, a threshold level, respectively.” In Akhteruzzaman, a message is sent to the network to turn off call forwarding not when receive signal strength rises above a threshold, as claimed in claim 13, but rather when the mobile device crosses some geographic boundary. See Figure 8, steps 194 and 196, and the text at column 8, lines 46-67. Accordingly, the anticipation rejection of claim 13 should be withdrawn.

#### Claims 2, 3, 7 and 10

The Examiner rejected claims 2, 3, 7 and 10 as obvious over Akhteruzzaman in combination with Lundborg (6,782,262).

Claims 2, 3 and 7 and 10 depend from claim 1. Assuming for the sake of argument that the Examiner’s comments vis-à-vis Lundborg are accurate for these claims, Lundborg does not make up for Akhteruzzaman’s deficiency in failing to teach the subject matter of claim 1. Lundborg is concerned with handoff of mobile devices between cells. Lundborg does not address call forwarding, nor does he teach or suggest that call forwarding, having been switched on, should be switched off in accordance with the teachings of claim 1 discussed above. Combining Lundborg with Akhteruzzaman

only suggests, at most, using Ec/Io measurements as a mechanism for measuring signal strength initially and sending the initial call forwarding signal to the network (assuming you are in one of the geographical locations where a landline phone is available for call forwarding, per Akhteruzzaman). Neither Lundbord nor Akhteruzzaman suggest continuing to monitor signal strength after call forwarding has happened and sending the second feature code when signal strength has improved above the threshold level.

Accordingly, since claim 1 is not rendered obvious by the combination of Akhteruzzaman in view of Lundbord, the obviousness rejection of claims dependent from 1 is improper and should be withdrawn.

#### Claim 8

Claim 8 stands rejected over Akhteruzzaman in view of Jensen (2002/00022480). The Examiner cites Jensen for a teaching of call forwarding wherein the threshold level for call forwarding varies on the type of mobile station (Jensen, paragraph 15). Applicants submit that this is not a correct analysis of Jensen. Jensen teaches that values involved (signal strength, related to interference of channels between cells) are “determined by the particular type of *mobile system involved*.” The reference then discusses various types of mobile systems (not *types of devices, as in claim 8*) such as CDMA system and AMPS (American mobile phone systems). Claim 8 is concerned with different types of mobile devices (such as year, make and model of device) within a given mobile phone system, not differences between mobile phone systems.

Moreover, even if the concepts of Jensen were applied to Akhteruzzaman, the resulting combination does not overcome the rejection of claim 1 since Jensen is silent on call forwarding as claimed in claim 1 and instead is directed to handoff between cells and

determining interference between cells. It does not overcome the deficiency of Akhteruzzaman discussed above. The rejection of claim 8 should be withdrawn.

#### Claim 9

Claim 9 stands rejected as obvious over Akhteruzzaman in view of Chawla (6,496,700).

Assuming for the sake of argument that Chawla is appropriate for citation of the subject matter of claim 9, it does not make up for the deficiency of Akhteruzzaman in failing to teach or suggest the subject matter of claim 1, from which claim 9 depends. In particular, Chawla is directed to methods for determining organizational parameters in a wireless system and discloses methods of determining signal strength and losses in wireless communications systems. Chawla is silent on a call forwarding feature, let alone call forwarding as claimed in claim 1. Even if Chawla was combined with Akhteruzzaman, at most it teaches characterization of organization parameters in a wireless system such as the Akhteruzzaman system but that fails to account for a method by which call forwarding should be terminated, as claimed in claim 1. Accordingly, the rejection of claim 9 is not proper and should be withdrawn.

#### Claim 12

Claim 12, which depends from claim 11, stands rejected as obvious over Akhteruzzaman in view of Haub (2004/015429). Haub is cited for a teaching of circuitry monitoring a ratio of  $E_c/I_o$  where  $E_c$  is a measurer of carrier strength and  $I_o$  is a measure of interference.

Haub's teaching does not overcome the deficiency of Akhteruzzaman in failing to teach or suggest the feature of claim 11 of a wireless telephone that includes logic "automatically continuing to monitor the received signal strength after the first feature code is transmitted and for transmitting a second feature code . . . deactivating call forwarding when said circuitry determines that the received signal strength, having fallen previously below a threshold level, rises above said threshold level." As noted above, Akhteruzzaman monitors GPS location, not signal strength, after the first signal is sent to the network to activate call forwarding (assuming that a subscriber has entered a land line telephone number that is in the same geographic proximity to where signal is lost). Therefore, Akhteruzzaman's wireless telephone does not work in the manner claimed in claim 11. Haub's teaching, if applied to Akhteruzzaman, would suggest at most the method to determine whether the first signal should be sent. Haub does not suggest continuing to monitor Ec/Io after the signal has been sent and deactivating call forwarding in the event Ec/Io rises above the threshold. Rather, Haub in combination with Akhteruzzaman suggests monitoring GPS location and sending the second signal when the phone has moved to a location outside of the boundaries of the location.

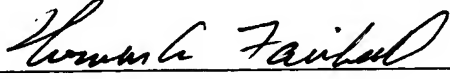
Consequently, even if Haub were to be combined with Akhteruzzaman, the result is the not invention of claim 12. The rejection should be withdrawn.

### Conclusion

Applicants submit that the claims in their present form are allowable. Favorable reconsideration of the application is requested.

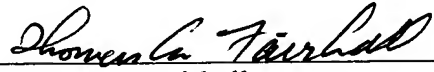
Respectfully submitted.

McDonnell Boehnen Hulbert & Berghoff LLP

Date: August 25, 2005 By:   
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Reg. No. 34591

#### CERTIFICATE OF MAILING

The undersigned hereby certifies that the foregoing RESPONSE TO AUGUST 1, 2005 OFFICE ACTION is being deposited as first class mail, postage prepaid, in an envelope addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450, on this 25th day of August, 2005.

  
Thomas A. Fairhall